

By



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,694	09/25/2003	Jae-Su Song	3364P135	9271

8791 7590 07/27/2005

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EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,694

Applicant(s)

SONG ET AL

Examiner

Naghmeh Mehrpour

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, are rejected under 35 U.S.C. 102(*e*) as being anticipated by Choi (US Publication 2004/0198383 A1)

Regarding claim 1, Choi teaches a handover method for mobility of a terminal in a mobile communication system, comprising:

(a) performing IP (Internet protocol) acquisition through an IP registration process according to a mobile IP when a terminal in an idle state moves to a new cell (0045, 0058); and

(b) transmitting traffic to a new moving AS (access station) from a previous AS without performing an IP modification and registration process when a terminal in an active state moves to a new cell (0045, 0077).

Regarding claim 5, Choi teaches a method of claim 1, wherein the terminal operates according to a procedure of the mobile IP when the terminal is in the idle state, and it operates according to a mobile communication network procedure when it is in the active state (0045, 0058, 0077).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2, is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (US Publication 2004/0198383 A1) in view of Ahmavaara (US Publication 20040068571).

Regarding claim 2, Choi fails to teach a method of claim 1, wherein comprises:

receiving a channel state measurement report message from the terminal;
a control AS determining a handover to set a radio link at a drift AS, and
reconfigure an RLC (radio link control) layer at a serving AS;

transmitting an active set update message to the terminal; and starting traffic access to the drift AS. However, Ahmavaara teaches teach a method of claim 1, wherein comprises:

receiving a channel state measurement report message from the terminal; a control AS determining a handover to set a radio link at a drift AS, and reconfigure an RLC (radio link control) layer at a serving AS (0028, 0032, 0041);

transmitting an active set update message to the terminal; and starting traffic access to the drift AS (0041, 0028, 0032). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Ahmavaara with Choi, in order for the service node can be connected to an SGSN, MSC or an other second access network node by a standard lu interface and/or to other service or switching nodes by an lur signaling interface for supporting seamless inter service node and inter access system handovers.

6. Claims 3-4, are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (US Publication 2004/0198383 A1) in view of Bims (US Patent 6,862,448 B1).

Regarding claim 3, Choi teaches a method of claim 1, wherein when the terminal is in the active state in. Choi does not specifically mention that data traffic transmitted through the radio link following the IP/RLC/MAC/physical layer preset in the serving AS is switched to the MAC/physical layer of the drift AS through the drift AS. However, Bims data traffic transmitted through the radio link following the IP/RLC/MAC/physical layer preset in the serving AS is switched to the MAC/physical layer of the drift AS through the drift AS (col 8

lines 64-67, col 9 lines 1-7). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Bims with Choi, in order to provide feasibility and mobility between 802.11 cells

Regarding claim 4, Choi teaches a method of claim 3, wherein when the terminal is in the active state, the data lost while generating the link moving to the terminal from the serving AS through the drift AS at the time of generation of handover are retransmitted using the retransmission function in the RLC layer when the handover is finished (0100).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vialen et al. (US Patent 6,577,868 B1) disclose method and system for performing handover in a mobile communication system

Forssell et al. (US Patent 6,714,784 B1) disclose method and arrangement for providing fast cell change in a packet switched cellular radio system

Gwon et al. (US Publication 2003/0104814 A1) disclose low latency mobile initiated tunneling handoff

8. **Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.

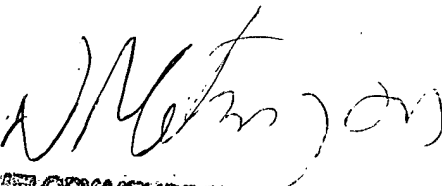
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold be reached (571) 272-7905.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

July 23, 2005


MELODY MEHROUPOUR
PATENT EXAMINER